

REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on August 9, 2002, and the references cited therewith.

Claims 1, 3, 5-11 are amended; as a result, claims 1-12 are now pending in this application.

Objection to the Abstract

The Abstract was objected to because it contains a certificate of mailing paragraph on the same page. A replacement Abstract is attached hereto.

Listing of References in the Specification

The Office Action stated that the listing of references in the specification is not a proper information disclosure statement. Applicant will cite the references in an information disclosure statement.

§1.75(a) Objection to the Claims

Claims 1-12 were objected to under 37 C.F.R. 1.75(a) for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

Concerning use of the term RAS:

The Office Action objected to the use of the term "RAS" in claims 1, 7, 8, 10 and 11. Claims 1, 7, 8, 10 and 11 have been amended. Applicant requests allowance of claims 1, 7, 8, 10 and 11.

Concerning antecedent basis of "the bank of modems" in claim 1:

Applicant respectfully traverses the objection. Antecedent basis for the bank of modems is found in the preamble to claim 1 and not in the spoofing operation of the RAS concentrator. It is the RAS concentrator operating like a plurality of modems that is used to spoof the bank of modems. M.P.E.P. § 2111.02 states that the claim preamble must be read in the context of the

entire claim. Thus, the preamble provides proper antecedent basis for the bank of modems. Applicant requests reconsideration and allowance of claim 1.

Concerning executing software in claims 1 and 4:

Applicant respectfully traverses the objection. M.P.E.P. § 2111.01 states that terms must be given their plain meaning unless otherwise defined in the specification. And that “plain meaning” refers to the meaning given to the term by those of ordinary skill in the art. Applicant submits that one of ordinary skill in the art would understand, based on the specification, how to install and execute software in the test bed needed to establish a plurality of simultaneous connections. For example, page 6 line 13 through page 7 line 2 of the specification describes how a RAS connector can spoof an analog modem by spoofing a communication server during V.8 connection negotiations. One of ordinary skill in the art would understand how to program a processor to execute the protocol. Applicant requests reconsideration and allowance of claims 1 and 4.

Concerning use of the term ISDN in claims 3 and 6:

Claims 3 and 6 have been amended. Applicant requests reconsideration and allowance of claims 3 and 6.

Concerning “a plurality of modems” in claim 4:

No, the plurality of modems is different in the preamble. The preamble describes a capability of a RAS concentrator in a communications server. The element in the claim recites a capability of a second RAS concentrator in a test bed. Applicant requests reconsideration and allowance of amended claim 4.

Concerning “each connection” in claim 5:

Claim 5 has been amended to better recite the subject matter. The amendment is for clarification only and is believed to be non-narrowing. Applicant requests reconsideration and allowance of amended claim 5.

Concerning "capable of," and "computer interface... communicating" in claim 8:

Claim 8 has been amended to replace "capable of" with "adaptable for." The amendment is for clarification only and is believed to be non-narrowing. The computer interface has been amended to place it in communication with the processor. Support for the amendment is found in the specification on page 5 lines 23 -26 and is believed to not incorporate new subject matter. Applicant requests reconsideration and allowance of amended claim 8.

Concerning "adapter" in claim 9:

Claim 9 has been amended to better recite the subject matter. The amendment is for clarification only and is believed to be non-narrowing. Applicant requests reconsideration and allowance of amended claim 9.

§112 Rejection of the Claims

Claims 1-12 were rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

The Office Action rejected claims 1-12 of the present application because of use of the word "spoofing" in a way repugnant to its usual meaning.

Applicant respectfully traverses the rejection because applicant believes the Office Action is interpreting the word too narrowly. Applicant admits that a definition of "spoofing" is the technique used to get a network device to operate over a network for which it was not designed to operate. At the same time, the Merriam-Webster dictionary defines spoof as a verb meaning to deceive or hoax. Consequently, the word has a wider meaning beyond the meaning as applied to WAN's cited by the Office Action. For example, Microsoft's Computer Dictionary, fifth edition, defines spoofing as "the practice of making a transmission appear to come from an authorized user." In one example in the present application, the word is used to describe mimicking a plurality of modems and "deceiving" a device being tested as though it is interacting with a plurality of modems. Thus, the device under test is "spoofed" and Applicant submits that this

use of the term is not repugnant to its usual meaning. Applicant requests reconsideration and allowance of claims 1-12.

§103 Rejection of the Claims

Claims 7 and 8 were rejected under 35 USC § 103(a) as being unpatentable over Chau et al. (US 6,147,987) in view of Armistead et al. (US 6,260,071).

Claims 7 and 8 have been amended to recite the subject matter in terms of structure rather than function. This should address the Examiner's concerns to more clearly define the claim without narrowing the claimed subject matter.

As stated in the specification, one embodiment of spoofing the communications server is to select options during the V.8 or V.8bis connection negotiations not normally selected by an analog modem. This allows the RAS concentrator to spoof the availability of V.90 or K56Flex analog-type modems. Thus, the operations of the program code are defined in the specification and claimed in claims 7 and 8. Applicant submits that an embodiment of the processor with the program code described in the present application is not obvious in view of the proposed combination of cited documents.

Applicant requests reconsideration and allowance of claims 7 and 8.

Claim 9 was rejected under 35 USC § 103(a) as being unpatentable over Chau et al. (US 6,147,987) in view of Armistead et al. (US 6,260,071) and in further view of Eng et al. (6,195,359).

Claims in dependent form shall be construed as to include all of the limitations of the claim incorporated by reference into the dependent claim (*See* 37 CFR 1.75(c)). Claim 9 is dependent on claim 8. In addition, the Office Action fails to make out proper *prima facie* obviousness because the proposed combination of Chau and Armistead with the proposed addition of Eng does not disclose all of the elements of claim 8 with claim 9. For example, Applicant is unable to find a teaching in either Chau or Armistead as to why one would need a computer interface in a RAS concentrator. Each of the devices shown in Chau and Armistead connect to a network. There is no real need shown for a computer used to configure the devices shown through a computer interface as described and claimed by Applicant.

Claims 10-12 were rejected 35 USC § 103(a) as being unpatentable over Armistead et al. (US 6,260,071) in view of Eckes et al. (US 6,243,832).

Claims 10 and 11 have been amended to recite the subject matter in terms of structure rather than function. This should address the Examiner's concerns to more clearly define the claim without narrowing the claimed subject matter.

As the Office Action suggests, Eckes describes a modem bank coupled to a network access server via a telephone switch. This approach is described in the Background of the Invention section of Applicant's specification as being unreliable and costly. Thus, "spoofing," or mimicking, a bank of modems is not suggested in Eckes. And further, Eckes (*See* claim 1) connects a test bed to the bank of modems, thus replacing the bank of modems is not taught or suggested in the proposed combination.

Also, as stated previously, claims in dependent form shall be construed as to include all of the limitations of the independent claim. Claim 12 is dependent on claim 11 and is believed to be allowable for the reasons stated above for claim 11.

Applicant requests reconsideration and allowance of claims 10-12.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612-373-6909) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

ANDREW WARNER

By their Representatives,

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Date

February 9, 2003

By

Thomas F. Brennan

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Reg. No. 35,075

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 10 day of February, 2003. (Monday)

Candis B. Buending

Name

Signature

Candis B. Buending

CLEAN VERSION OF PENDING CLAIMS

- B1
1. (Amended) A method of testing a bank of modems, comprising:
- providing a test bed having a Remote Access Server (RAS) concentrator, wherein the RAS concentrator includes means for spoofing operation of a plurality of modems;
 - connecting the RAS concentrator to the bank of modems; and
 - executing software in the test bed to establish a plurality of simultaneous connections between the RAS concentrator and the bank of modems.
2. The method of claim 1, wherein connecting includes connecting the RAS concentrator to the bank of modems across a Public/Switched Telephone Network (PSTN) and wherein executing includes establishing each connection across the Public Switched Telephone Network.
- B2
3. (Amended) The method of claim 1, wherein connecting includes connecting the RAS concentrator to the bank of modems across a Public Switched Telephone Network (PSTN), wherein the RAS concentrator connects to the PSTN via an Integrated Services Digital Network (ISDN) Primary Rate Interface.
4. In a communications server having a remote access server (RAS) concentrator for communicating with a plurality of modems across a communications medium, a method of testing the communications server, comprising:
- providing a test bed having a second RAS concentrator, wherein the second RAS concentrator includes means for spoofing operation of a plurality of modems;
 - connecting the second RAS concentrator to the communications server under test; and
 - executing software in the test bed to establish a plurality of simultaneous connections between the second RAS concentrator and the RAS concentrator within the communications server under test.
- B3
5. (Amended) The method of claim 4, wherein the communications medium is a Public Switched

Telephone Network (PSTN);

wherein connecting includes connecting each of the RAS concentrators to the Public Switched Telephone Network (PSTN) and wherein executing includes establishing each simultaneous connection across the Public Switched Telephone Network.

6. (Amended) The method of claim 4, wherein the communications medium is a Public Switched Telephone Network (PSTN) having a first and a second Integrated Services Digital Network (ISDN) Primary Rate Interface (PRI);

wherein connecting includes connecting the second RAS concentrator and the RAS concentrator under test to the Public Switched Telephone Network (PSTN) via the first and second ISDN Primary Rate Interface, respectively, and wherein executing includes establishing an ISDN PRI connection across the Public Switched Telephone Network.

7. (Amended) A Remote Access Server (RAS) concentrator, comprising:
a processor; and
a Public Switched Telephone Network (PSTN) interface connected to the processor,
wherein the processor includes program code for spoofing individual analog modem connections across the Public Switched Telephone Network (PSTN) interface.

8. (Amended) A Remote Access Server (RAS) concentrator adapter, comprising:
a processor;
a computer interface in communication with the processor, wherein the computer interface is adaptable for communicating with a computer; and
a Public Switched Telephone Network (PSTN) interface connected to the processor,
wherein the processor includes program code for spoofing individual analog modem connections across the Public Switched Telephone Network (PSTN) interface.

9. (Amended) The RAS concentrator adapter of claim 8, wherein the RAS concentrator

adapter plugs into a computer motherboard.

10. (Amended) A system for testing a communications server, wherein the communications server provides a plurality of simultaneous modem connections, the system comprising:

a Public Switched Telephone Network;

a processor; and

a Remote Access Server (RAS) concentrator connected to the processor and the Public Switched Telephone Network, wherein the RAS concentrator includes:

a signal processor for managing a plurality of modem connections; and

a Public Switched Telephone Network interface connected to the signal processor and the Public Switched Telephone Network, wherein the signal processor includes program code for spoofing individual analog modem connections across the Public Switched Telephone Network (PSTN) interface.

11. (Amended) A system for testing a communications server, wherein the communications server provides a plurality of simultaneous modem connections, the system comprising:

a communications medium;

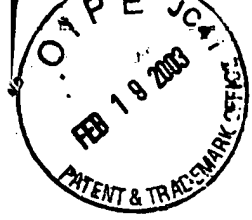
a processor; and

a Remote Access Server (RAS) concentrator connected to the processor and the communications medium, wherein the RAS concentrator includes:

a signal processor for managing a plurality of modem connections; and

a communications interface connected to the signal processor and the communications medium, wherein the signal processor includes program code for spoofing individual analog modem connections across the communications medium.

12. The system according to claim 11, wherein the communications medium includes a Public Switched Telephone Network.




CLEAN VERSION OF ABSTRACT

SYSTEM AND METHOD FOR TESTING A COMMUNICATIONS SERVER

Applicant: Andrew Warner

Serial No.: 09/627,262

Abstract of the Disclosure

 A system and method of testing a bank of modems. A test bed includes a RAS concentrator, wherein the RAS concentrator includes means for spoofing operation of a plurality of analog modems. The RAS concentrator is connected to a communication server having one or more concentrators or a bank of modems. Software is executed in the test bed to establish a plurality of simultaneous connections between the RAS concentrator and the bank of modems.

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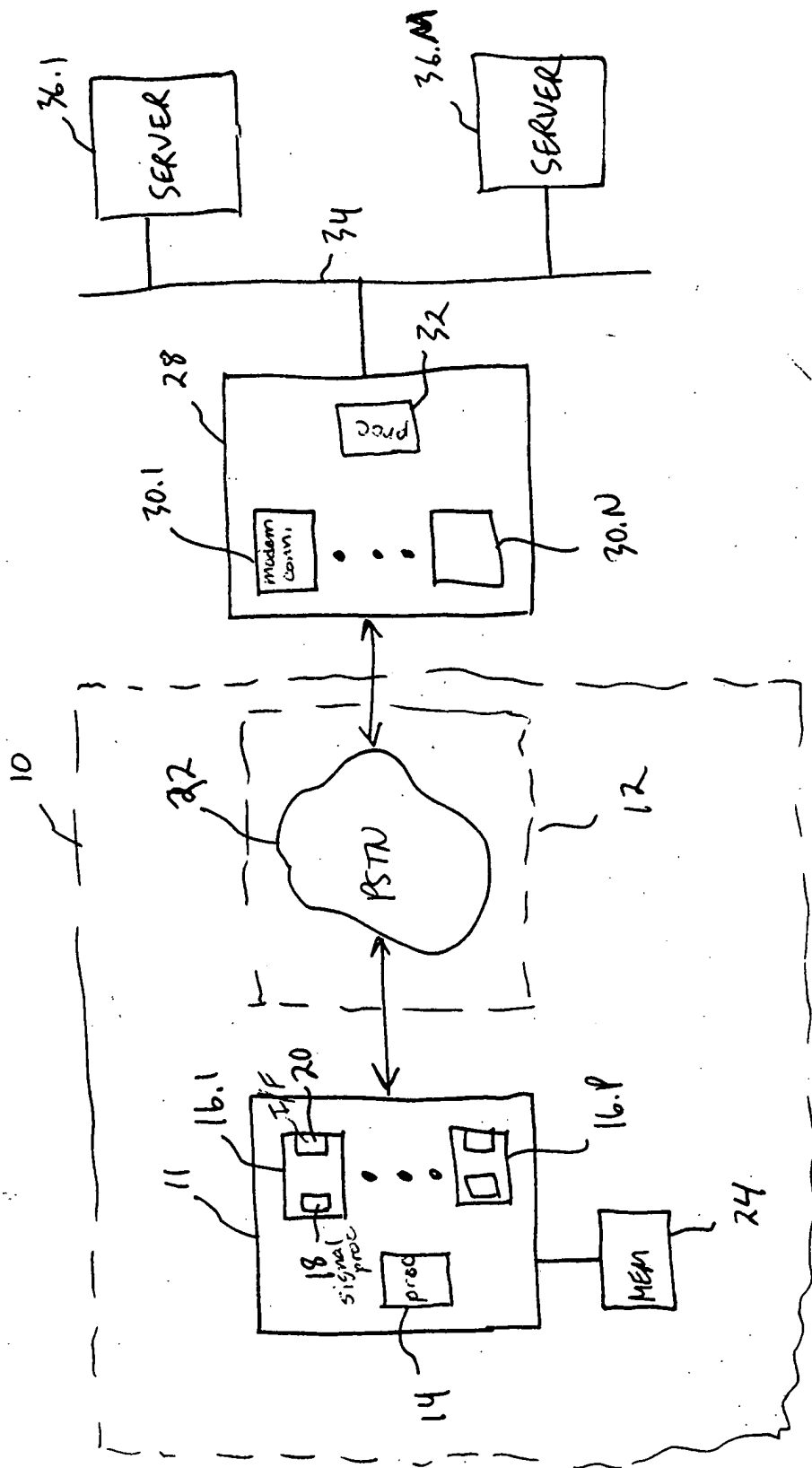


Fig. 1

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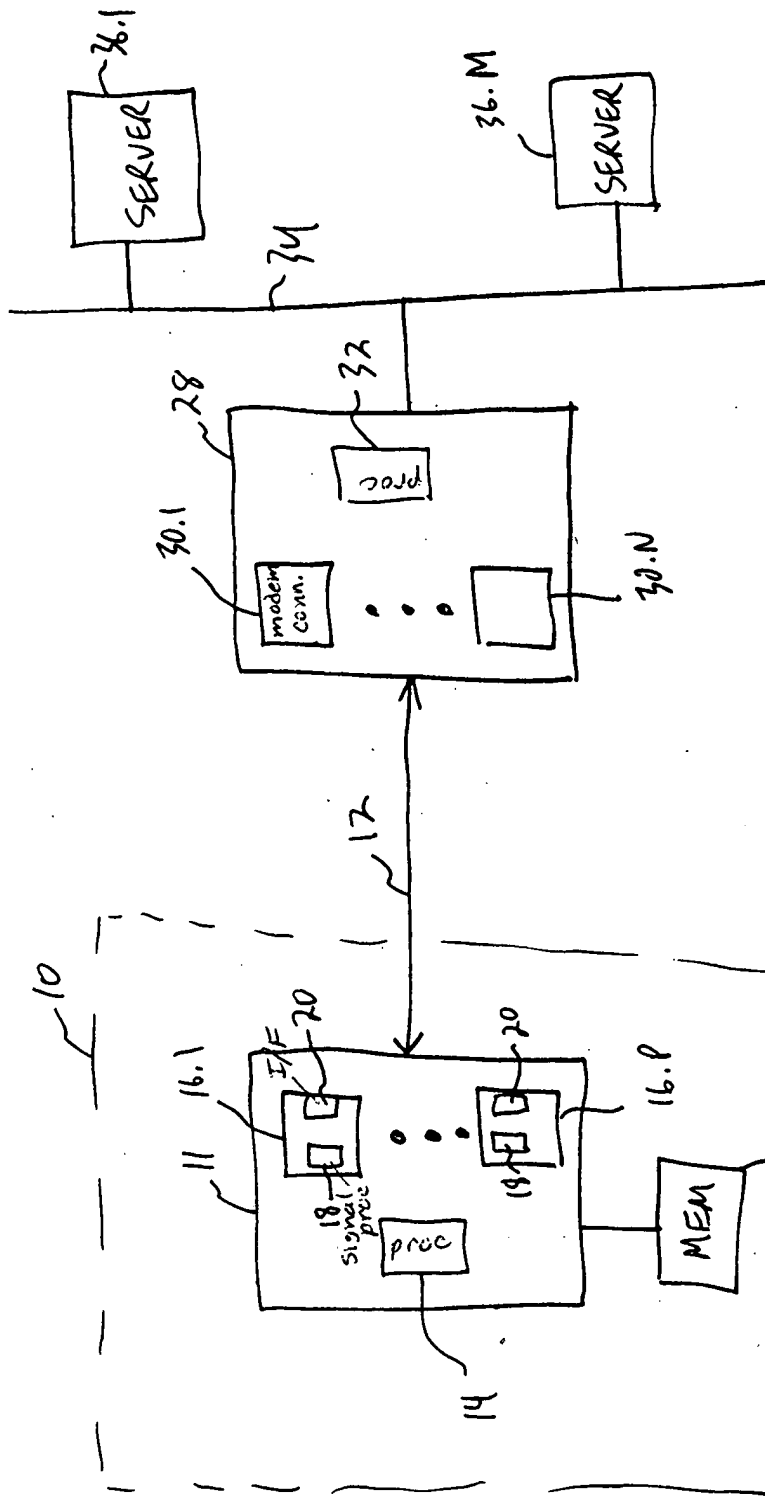


Fig. 2

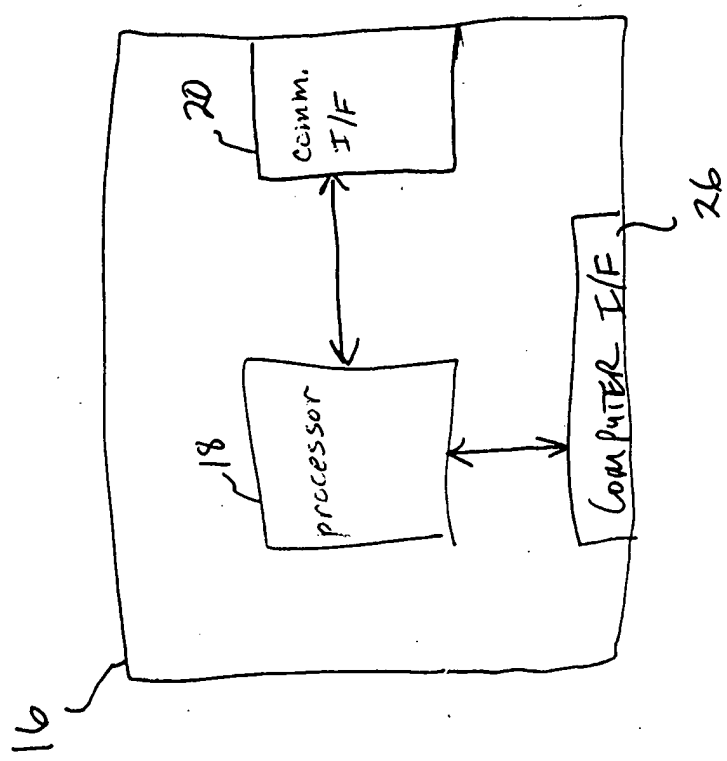


Fig. 3